NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
CONTROL STRIP DENSITY

Date: [1]

Contract/Project No. [2] **County** [3] **Control Strip No.** [4]

From Sta. [5] **to Sta.** [6] **Lane** [7]

Layer [8] **Depth** [9] **Width** [10] **Route** [11] **Job Mix Formula** [12]

Gauge Serial No. [13] **Material** [14] **Crew No.** [15]

STANDARD COUNTS				ASPHALT CORE SAMPLES		
Density				Core No.	Sta.	%Compaction
[16]	System 1				[18]	%
	System 2					%
Allowable Standard Count Range						%
[17]	+1.0%	System 1	- 1.0% [17]			%
	+1.2%	System 2	- 1.2%			%
				Avg. % Compaction		% (A)

Test	Station	ASPHALT (Wet Density)
1	[19]	[20]
2		
3		
4		
5		
6		
7		
8		
9		
10		
	AVG. (PCF)	[21] (B)

ASPHALT TARGET DENSITY

Average of Control Strip (PCF) ÷ Average of Cores (B÷A) 100 = [22] **(C) Target Density (PCF)**

A = Core Sample Average **B = Average PCF of Control Strip** **C = Correlated Target Density**

cc: *Resident Engineer [White] *QA Copy Only
QA/QC Technician [Gold]

Print Name Legibly w/ HiCAMS #: [23]

QA/QC Technician Signature: [24]

NOTE: By providing this data under my signature and/or HiCAMS certification number, I attest to the accuracy and validity of the data contained on this form and certify that no deliberate misrepresentation of test results, in any manner, has occurred.

Instructions for M&T 514 QA/QC

GENERAL NOTE: This form to be completed by both the QA and QC Nuclear Density Technicians when a control strip is tested to determine a correlated target density. (Refer to nuclear gauge operator's manual for control strip frequencies.) The Contractor's gauge operator will always correlate his/her gauge to the control strip core samples. The Department's gauge operator will correlate his/her gauge to the control strip samples at the same time as the Contractor's gauge operator, if possible. The Contractor must notify the Department's Roadway Technician far enough in advance of placing a control strip so the Department can provide a gauge operator at that time. Distribution of this form should be as follows: The QC Density Technician will maintain the gold copy. The QC Technician will provide the other copy to the Department's Roadway Technician at the end of each day's operation when a control strip is placed. These will be attached to the daily roadway report (M&T 605) and forwarded to the Resident Engineer. The white copy will remain on file at the Resident Engineer's office. When this form is completed by the Department's QA gauge operator, he/she will keep the gold copy. The QA Technician will give the other copy to the NCDOT Roadway Technician and distribution will be the same as above for the QC copies.

1. Date mix was placed, compacted and tested
2. Contract number or Project Number that mix is being placed on (Not individual work order numbers)
3. County in which Contract is located
4. Sequential control strip number for each type mix being placed (Refer to Nuclear Gauge Operators Manual for procedures for numbering control strips)
5. Beginning reference station number of the control strip
6. Ending reference station number of the control strip, not to exceed 300 L.F. from beginning of control strip
7. Lane on which control strip is placed (i.e. NBL - Lt. Ln., WBL - Rt. Ln.)
8. Layer of type mix being placed (i.e. B25.0C 1st layer, S9.5B 2nd layer, etc.)
9. Thickness of layer being placed (i.e. 1 ½ ", 1", 3 ½ ", etc.)
10. Width of layer being placed (i.e. 10', 12', 24', etc.)
11. Road number or Route number (i.e. US-1 North, SR-1559, I-40, etc.)
12. Job Mix Number of mix type being placed
13. Nuclear Gauge Serial Number (usually etched into handle of Nuclear Gauge)
14. Type Material being tested (See JMF i.e. B25.0C, S9.5B, etc.)
15. Crew number (once established remains the same for entire project)
16. Actual number from gauge when taking standard counts witnessed by the Department
17. Calculated Allowable Standard count range for subsequent days. This range is determined by adding ± 1% from the standard count.
18. QC or QA Core sample number, station number, and % compaction of core samples in the control strip. This information is transferred from the QC-5 form
19. Actual station number control strip core samples were placed
20. Nuclear gauge readings in pounds per cubic foot. Two (2) gauge readings must be taken on each core sample location in the control strip. Five (5) non-nuclear gauge readings must be taken on each core sample location in the control strip (only the average of the five readings will be recorded on the form for each core location).
21. Average pounds per cubic foot of the ten (10) nuclear gauge readings or 25 non-nuclear gauge readings at core sample locations
22. Correlated target density to be entered in gauge for determining density of a sections (Avg. PCF divided by core sample average x 100)
23. QA or QC Technician's printed name and HiCAMS nuclear gauge operators certification no., depending on who completes form
24. QA or QC Technician's signature certifying that data entered on this form is true and correct.